

Programming the quadratic formula into your Texas Instruments calculator

PRGM

> **>** New **ENTER** QUAD

ENTER

PRGM **>** I/O **v** 2:Prompt **ENTER**

ALPHA A **,** **ALPHA** B **,** **ALPHA** C **ENTER**

ALPHA B² - 4 **ALPHA** A **ALPHA** C **STO->** **ALPHA** D **ENTER**

PRGM **>** I/O **v** **v** 3:Disp **ENTER**

(- **ALPHA** B + **2nd** $\sqrt{(\text{ALPHA D})}$) / (2 **ALPHA** A) **ENTER**

PRGM **>** I/O **v** **v** 3:Disp **ENTER**

(- **ALPHA** B - **2nd** $\sqrt{(\text{ALPHA D})}$) / (2 **ALPHA** A) **ENTER**

At the end the program should look like:

:Prompt A, B, C

:B² - 4AC -> D

:Disp (-B + \sqrt{D}) / (2A)

:Disp (-B - \sqrt{D}) / (2A)

The most common application for the quadratic formula in our studies occurs when solving for time in the equation: $\Delta x = \frac{1}{2} a \Delta t^2 + v_i \Delta t$